



OUTCOME REPORT

The banner features a blue background on the left with white text. On the right, there is a photograph of a person wearing a headset, overlaid with a geometric pattern of blue triangles. A smaller version of the banner is shown within the photograph. At the top right, there are five categories: ICTs FOR EDUCATION, CHALLENGES AND INITIATIVES, BROADBAND INFRASTRUCTURE, DIGITAL SKILLS DEVELOPMENT, and FLEXIBLE EDUCATION DELIVERY. At the bottom right, there are logos for UNICEF, the United Nations, and ITU.

ITU-UNICEF Regional Briefing

Connectivity in Education

Status and recent developments in nine non-European Union countries

10 November 2021
10:00 - 11:45 CET
Online

Follow us on Twitter
@ITUEurope
Join us online!
<https://bit.ly/3Do0TJZ>

Organized within the framework of the UN Digital Transformation Group for Europe and Central Asia (UN DTG4ECA).

Organized by:

unicef

ITU-UNICEF Regional Briefing on “Connectivity in Education: Status and recent developments in nine non-European Union countries”

© 2021 ITU
International Telecommunication Union

Version 1.1

ACKNOWLEDGEMENTS

This report has been produced by the International Telecommunication Union (ITU). ITU would like to express their appreciation to **Ms Gwi Yeop Son**, Regional Director for Europe and Central Asia of Development Coordination Office (DCO); **Ms Afshan Khan**, Regional Director of UNICEF Europe and Central Asia, and **Mr Jonathan Baker**, Head of the Science unit and Officer-in-Charge of UNESCO Regional Bureau for Science and Culture in Europe for delivering their opening remarks.

ITU would also like to thank esteemed guest speakers of the panel discussion for their interventions: **Ms Marta Markowska**, Policy Officer for Digital Education in the Directorate-General for Education, Youth, Sport, and Culture (DG EAC), European Commission in Brussels; **Ms Romina Kostani**, Director of Innovation and e-Gov Sectorial IPA at the National Agency of Information Society in Albania; **Ms Rozalba Merdani**, Head of the Educational Policies and Strategies Unit at the Ministry of Education and Sport in Albania; **Ms Biljana Trajkovska**, State Advisor on Strategic Planning at the Ministry of Education and Science in North Macedonia; **Ms Meliha Kovacevic**, Head of Telecommunications Licensing Department at the Communications Regulatory Agency in Bosnia and Herzegovina, **Mr Luka Radunovic**, Digital services coordinator at M:Tel in Montenegro, and **Ms Gulsanna Mamedieva**, Director General of Directorate for Eurointegration at the Ministry of Digital Transformation of Ukraine.

Finally, ITU thanks all those who made this Regional Briefing possible: to **Mr Jaroslaw Ponder**, Head of ITU Office for Europe for delivering his opening remarks and for moderating the event; to **Ms Sarah Delporte**, Project Officer at ITU Office for Europe and **Ms Sarah Fuller**, Education Consultant at the UNICEF Regional Office for Europe & Central Asia for the organization of this event and their interventions; **Ms Jiae Yang**, Junior Policy Analyst at ITU Office for Europe, and **Ms Andra Mocanu**, Consultant at ITU Office for Europe, for the organization of this event and elaboration of this report.

TABLE OF CONTENTS

- 1. INTRODUCTION4**
- 2. PARTICIPATION4**
- 3. DOCUMENTATION5**
- 4. OPENING REMARKS5**
- 5. WORKSHOP SESSIONS6**
- 6. CLOSING REMARKS12**

1. INTRODUCTION

The ITU-UNICEF Regional Briefing on “[Connectivity in Education: Status and recent developments in nine non-European Union countries](#)” was held online on 10 November 2021. The Regional Briefing was jointly organized by the International Telecommunication Union (ITU) Office for Europe and the UNICEF Regional Office for Europe and Central Asia within the context of the UN Digital Transformation Group for Europe and Central Asia (UN DTG4ECA), and with the support of the UN Development Coordination Office (DCO).

The Regional Briefing was held within the framework of the ITU Regional Initiatives for Europe on broadband development (1) and digital skills (3) and in support of the priorities of UNICEF’s Learnin initiative in Europe and Central Asia, which operationalizes UNICEF’s global Reimagine Education initiative in the region.

The briefing was the occasion to present the outcomes of the recently launched ITU-UNICEF report on “[Connectivity in Education: Status and recent developments in nine non-European Union countries](#)” while drawing attention to the ongoing efforts and commitment of ITU, UNICEF, and partners in ensuring meaningful and inclusive connectivity and providing a platform for dialogue between international and national stakeholders.

The briefing mainly focused on providing an overview of the findings of the report, which reviews the status of ICTs as drivers of i) digital skills development, ii) e-governance of education systems, and iii) smart and flexible education delivery at school and home, and provides aggregate and country-level updates on connectivity in education in **Albania, Bosnia and Herzegovina, Georgia, Moldova, Montenegro, North Macedonia, Serbia, Turkey, and Ukraine**. It also allowed stakeholders from the European Commission, Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, and Ukraine to exchange on what has already been done at the country level, as well as to identify the remaining challenges and possible actions to be taken to address those challenges.

The Briefing’s agenda covered the following:

- Session 1 on “Status of Connectivity in Education: Findings from the joint ITU-UNICEF report”
- Session 2 on “Panel discussion - National and international perspectives towards strengthening connectivity in education”

The main outcomes of the briefing are outlined in this report, which structures the key points that emerged during each session of the event.

2. PARTICIPATION

The Briefing was an open event, mainly targeting national representatives of countries of focus of the Report, the UN system partners at the national and regional levels, UNICEF country offices, the Donors community, as well as all other interested stakeholders. Thirteen (13) eminent speakers presented and discussed during the sessions. Details about the agenda and speakers as well as the presentation delivered can be found on [the event’s website](#). The workshop was attended by 86 participants.

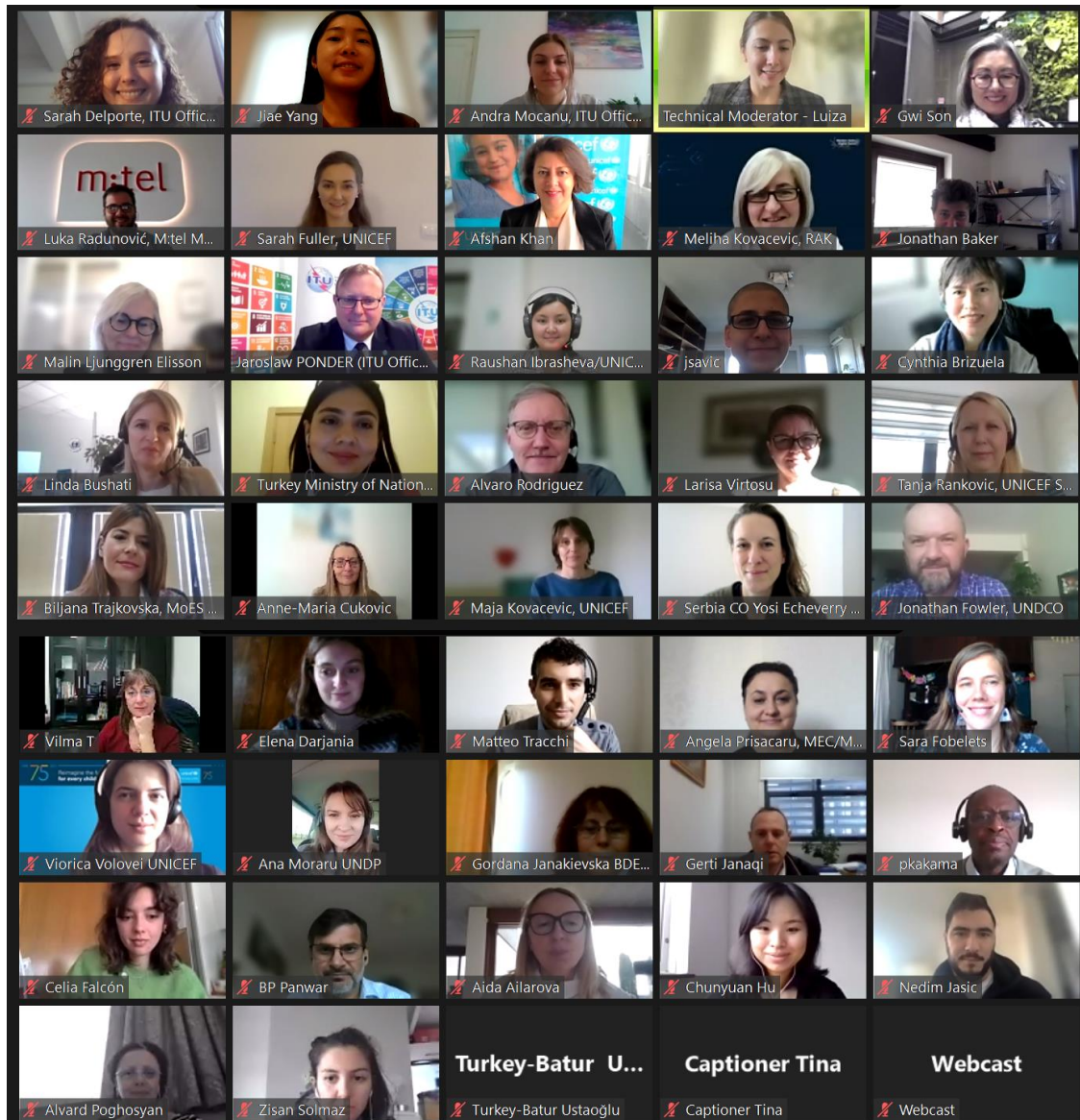


Figure 1 Virtual Group Photo

3. DOCUMENTATION

The Briefing was held virtually. Relevant documentation was made available in electronic form on the [event webpage](#).

Captioning and video recording of this briefing session, as well as this outcome report, are also made available on the [event webpage](#):

- [Captioning](#)
- [Video recording](#)

The full ITU-UNICEF joint report “Connectivity in education: Status and recent developments in nine non-European Union countries” is accessible for free on the [publication webpage](#). A summary of the report and abstracts of each country is also available on the [website](#) and at the following links, respectively:

- [Summary of the Report - Aggregated perspectives](#)
- [Summary - Albania](#)

- [Summary Bosnia and Herzegovina](#)
- [Summary - Georgia](#)
- [Summary - Moldova](#)
- [Summary - Montenegro](#)
- [Summary - North Macedonia](#)
- [Summary - Serbia](#)
- [Summary - Turkey](#)
- [Summary - Ukraine](#)

4. OPENING SEGMENT

Opening addresses

In her opening speech, **Ms Gwi Yeon Son**, Regional Director for Europe and Central Asia of the Development Coordination Office, recognized that a silver lining of COVID-19 was the acceleration of digitalization. Pandemic exposed a digital divide in education, gender, and rural areas, particularly young women and girls in rural areas. Ms Son emphasized the importance of taking action to address the vulnerabilities of women and girls in rural areas, to not leave them further behind. Recalling the common SDGs agenda, Ms Son reiterated the need for ICTs and education to go hand in hand. Ms Son highlighted that this regional collaborative partnership of ITU and UNICEF contributes to creating meaningful impacts on students and that this briefing provides an example to follow on how multiagency cooperation strengthens collective deliveries of the UN system in terms of scale and impacts at the regional level. In that sense, Ms Son thanked ITU and UNICEF for the elaboration of the joint Report and preparation of the event.

Following Ms Son’s opening speech, **Mr Jaroslaw Ponder**, Head of the International Telecommunication Union (ITU) Office for Europe, confirmed that ensuring meaningful and inclusive connectivity for all is at the heart of ITU’s priority. He underlined that the diversity of drivers of connectivity in education requires a holistic approach which can only be addressed by partnering with other UN Agencies. In that sense, he highlighted the importance of collaborating with the UNICEF Regional Office for Europe and Central Asia in the elaboration of the joint *Connectivity in Education* report, as well as the involvement of the UNESCO Regional Bureau for Science and Culture in Europe in this exercise. He pinpointed that, at the global level, 1 out of 3 internet users are younger than 18, and more than 175,000 children go online for the first time every day, but persistent and even increasing digital divide has been a barrier in the use ICTs in education. Mr Ponder emphasized the necessity to strengthen connectivity to allow students to have access to basic education. He then proceeded by emphasizing that not only connectivity but also affordability and accessibility of connectivity should be addressed, to ensure equitable and inclusive access to the internet for all the population, including marginalized groups. Mr Ponder further drew attention to additional multiagency partnerships such as the [ITU-UNICEF ‘GIGA initiative’](#), which aims to connect every school to the internet, the [ITU-UNDP ‘Joint facility for digital capacity development’](#). Finally, Mr Ponder invited all the stakeholders to actively participate in the [ITU World Telecommunication Development Conference \(WTDC\)](#) which will be held in Addis Ababa from 6 to 15 June 2022, and to join the [ITU Partner2Connect Digital Coalition](#).

Following Mr Ponder’s speech, **Ms Afshan Khan**, Regional Director of the UNICEF Europe and Central Asia, mentioned that the school closure caused by the pandemic outbreak disrupted the learning of 26.6 million school children in the 9 countries covered in the report. Ms Khan highlighted the key role of ICTs in times of crisis, such as the start of television broadcasting and digital learning platforms to ensure the continuity of education for students. She then pointed out that the status of connectivity was inadequate to guarantee the continuity of education for all children in these nine countries, considering that over 11 million households do not have access to the internet and more than 8 million households have no computers. During the pandemic crisis, it was estimated that 1 in 3 learners was not reached at all by digital and broadcast learning platforms in Eastern Europe and Central Asia’s countries. Ms Khan

highlighted that expanding the connectivity is crucial to make the education system more resilient and to help the most marginalized groups such as children with disabilities, refugees, migrant children, and ethnic minorities to be more included in education and social life. Ms Khan then reiterated the positive impacts of enhancing connectivity such as expanding learning offers, improving data collection in administrative systems of education, and driving innovation and local solutions to connect all young people to the internet. She further explained that despite progress made in infrastructure, training and learning systems, and collaboration with other stakeholders for leveraging finance, there is a huge opportunity for growth in this region, particularly with regards to broadband policies and strategies, access to quality and inclusive education, equipping schools with connected devices and capacity strengthening for digital learning. Finally, Ms Khan drew attention to the work that UNICEF is supporting in the region, including the EU-funded capacity strengthening programs for teachers in quality and inclusive digital learning in the Western Balkans, and the joint research project with ITU such as Giga.

Mr Jonathan Baker, Head of the Science unit and Officer-in-Charge of the UNESCO Regional Bureau for Science and Culture in Europe proceeded by highlighting that connectivity in education is a multidimensional topic that calls for a close partnership among different stakeholders. Mr Baker reiterated that today’s briefing is important to explore and identify concrete essence and further solidify partnerships in the European region. Mr Baker mentioned that COVID-19 has pushed education further into the digital ecosystem. Computers and Internet connections have temporarily replaced traditional classroom structures and determined whether 100 million students have access to educational opportunities or not. Mr Baker pointed out that connectivity is the key to the right of education and global commitments are important to ensure inclusive, equitable quality education and lifelong learning opportunities for all. Mr Baker then shed light on the necessity to undertake a collective action to preserve collective gains and ensure that evolving digital environment transforms the education system towards safe, inclusive, equitable directions in line with national priorities and curricula. Mr Baker also drew attention to the Global Declaration on Connectivity for Education, within the framework of the Global Education Summit UNESCO, Futures of Education report 2021, and Broadband Commission report 2021 focusing on hybrid learning, published as a result of the close partnership between ITU and UNESCO. Mr Baker closed his remarks by emphasizing the strong collaboration with governments, UNICEF, ITU, and other partners in the region on this matter.

5. REGIONAL BRIEFING SESSIONS

SESSION 1: STATUS OF CONNECTIVITY IN EDUCATION: FINDINGS FROM THE JOINT ITU-UNICEF REPORT

Focus: To provide an overview of the findings of the Report. **Presenters:** **Ms Sarah Delporte**, Project Officer, ITU Office for Europe, and **Ms Sarah Fuller**, Education Consultant, UNICEF Regional Office for Europe & Central Asia.

Key Points:

- The report focuses on addressing the enablers of connectivity in education, and follows a standardized structure for both the regional overview and the country profiles which consist of an overview of **(i)** the education system and status of broadband; **(ii)** Government strategies, the status of education quality and the role of ICTs; **(iii)** multi-stakeholder partnerships and financing mechanisms fostering investment in school connectivity; and **(iv)** national responses to COVID-19 and educational initiatives for distance learning. The report covers 23 million pupils between the age of 6 and 17 in 130,000 schools in these 9 countries;

- Findings reveal that 30% of the total population of these 9 countries combined do not make use of the Internet; More than 11 million households have low Internet access and more than 18 million still lack a PC at home;
- There has been a great commitment from Government and National Regulatory Authorities, especially in places where there was no coverage only six years ago, such as Bosnia and Herzegovina, Turkey, and Ukraine. A lot of progress has been made: since 2015, 34.6 million people have been brought online in these nine countries and the number of active mobile broadband subscriptions has more than doubled to reach over 120 million subscribers; fixed broadband subscription increased by 65%; On average, 91% of the total population in these 9 countries are covered by 4G, with the lowest rate at 78%; Despite significant progress in increasing access to education, there are still 2 million children between the ages of 6 and 17 who are out of school with out-of-school rates ranging at the primary level from less than 1% in Georgia, Montenegro, and North Macedonia to more than 10% in Moldova, and at the upper secondary level from 6% in Georgia and Ukraine to more than 30% in North Macedonia and Moldova. Close to 9.8 million children and adolescents in these 9 countries are not achieving minimum proficiency in foundational skills needed for further learning and skills development. Exclusion from quality education and poor learning outcomes disproportionately affects Roma and other minority children, children with disabilities, refugee, migrant children, and other marginalized groups;
- The National averages of PCs per student range from 0.21 in Montenegro to 0.72 in Ukraine, while the current PCs in schools are sometimes outdated, and not connected to an adequate Internet speed. The cost for filling these gaps could range between 1 billion and 12 billion USD; with the low-range estimate being only for the cheapest-available devices, which is not necessarily ideal for education, and the high-range estimate which is calculated using a higher-end computer and monitor;
- Teachers often lack training on digital-pedagogical skills as well. Weak systems for high-quality teacher recruitment and retention, and a lack of quality training and support to meet the diverse needs of all learners are common across the region.
- All 9 countries consider education policy as a strategic priority and have undertaken various reforms to innovate and modernize education, a critical first step in leveraging the potential of ICTs to strengthen education systems, improve learning outcomes, and bridge equity gaps. For example, most countries have established centralized education management information systems to manage and use data more efficiently.
- The role of ICTs is significant in the education system. Digitalization of education information management systems helps facilitate efficient, evidence-based, equity-focused decision-making at both national and local levels. ICT infrastructure in schools is both necessary for and directly related to the innovative management of education systems, and also enables the introduction of digital skills development in curricula. ICT infrastructure and school connectivity can also support the continuity of education services during the periods of school closure. The benefits of distance learning extend beyond the pandemic, including providing ongoing quality support like mentoring to teachers and distance learning for children who cannot attend the classes;
- Despite the progress, there are remaining challenges: **(i)** The cost of high-education personnel can overshadow investment in learning materials, equipment, and training; **(ii)** limited and unequal access to devices, digital tools, and connectivity both at school and home; **(iii)** lack of broadband strategies based on data and geo-references broadband mapping systems; **(iv)** lack of comprehensive and holistic data; **(v)** insufficient ICT training for teachers, and lack of digital skills among students; **(vi)** lack of coherent links between digital reform and other key educational reforms;

- EU, and international organizations, and international financial institutions can provide additional technical assistance or funding. International organizations can also support countries’ initiatives to develop digital skills programs in schools as a fundamental part of the curricula and can play an important role in facilitating partnerships with Governments and the private sector. Public-private partnerships (such as partnerships with mobile network operators and Internet service providers) can provide innovative financing mechanisms for better connectivity and device provision. Other partnerships of interest are those NGOs and civil society;
- The good practices undertaken at the country level presented in the report include, among others: **(i)** broadband infrastructure mapping systems which can provide transparent information on broadband to markets and consumers and support infrastructure sharing; **(ii)** development of geographical information systems specifically dedicated to mapping school infrastructure **(iii)** the collection of transparent and comprehensive data on digital skills level among students, teachers and parents; **(iv)** tapping into state budgets to make large investments in connectivity; **(v)** television broadcasting which was a good solution to fill education gaps during the pandemic and post-pandemic periods; **(vi)** Education management information systems (EMISs) which can modernize the collection, management and use of data for better administration of the education system; **(vii)** issuing educational content and creating platforms adapted to local minority languages; **(viii)** explicitly referencing ICTs, digital skills and school connectivity in strategic documents to better focus priorities for long-term policy; **(ix)** establishing donation campaigns based on transparent data and gap assessments to connect potential donors of ICT equipment with schools in need; **(x)** enacting digital skills training for teachers to help them better adapt to distance learning and foster ICT literacy among students; **(xi)** embedding digital competencies into other subjects to increase ICT literacy; **(xii)** collaborations between various government ministries to help mobilize project financing to provide connectivity to schools; **(xiii)** in addition to broadcasting, content repositories and online communication for learning delivery, government-launched centralized websites or one-stop locations (e.g., portals) which provide support to students, teachers and parents to access various learning resources and platforms and facilitate the continuity of learning during crises, ;
- There is a need to ensure that policies, partnerships, and programming are all based on local needs and fit for the context. In this sense, ITU and UNICEF have developed a series of country briefs to highlight the key findings for each of the nine countries. ITU and UNICEF also stand ready to organize country-level workshops to hold more in-depth discussions on national challenges, needs, and recommendations.

SESSION 2: THE JOURNEY TOWARDS ENSURING CHILD ONLINE PROTECTION: ROLL-OUT OF THE ITU COP GUIDELINES IN EUROPE

Focus: National and international stakeholders to discuss the role of connectivity in the education system during the COVID-19 crisis and beyond, the importance of partnerships across various actors, and to share national and international frameworks advancing connectivity in education, as well as remaining challenges and best practices at the national level.

Moderator: Mr Jaroslaw Ponder, Head of the ITU Office for Europe

Speakers: Ms Marta Markowska, Policy Officer for Digital Education in the Directorate-General for Education, Youth, Sport, and Culture (DG EAC), European Commission in Brussels; Ms Romina Kostani, Director of Innovation and e-Gov Sectorial IPA at the National Agency of Information Society in Albania;

Ms Rozalba Merdani, Head of the Educational Policies and Strategies Unit at the Ministry of Education and Sport in Albania; **Ms Biljana Trajkovska**, State Advisor on Strategic Planning at the Ministry of Education and Science in North Macedonia; **Ms Meliha Kovacevic**, Head of Telecommunications Licensing Department at the Communications Regulatory Agency in Bosnia and Herzegovina, **Mr Luka Radunovic**, Digital services coordinator at M:Tel in Montenegro, and **Ms Gulsanna Mamedieva**, Director General of Directorate for Eurointegration at the Ministry of Digital Transformation of Ukraine.

Key Points:

European Commission, Ms Marta Markowska, Policy Officer for Digital Education in the Directorate-General for Education, Youth, Sport, and Culture (DG EAC)

- Being connected to the Internet provides schools with many benefits, such as having access to online resources, platforms for collaboration, and to tools for inquiry-based pedagogies. However, there are challenges and shortcomings when it comes to connectivity, such as the geographic digital divide. Considering this, it is not realistic to talk about rolling out high-quality digital education for all learners if the gaps in connectivity are not addressed;
- In September 2020, the Commission adopted a new digital education action plan for 2021-2027 which provides a vision for inclusive, high quality, and accessible digital education for all learners. The Action Plan focuses on two priorities: the creation of a high-performing digital education ecosystem and strengthening the digital skills and competencies of all learners.
- On the political level, the European Commission is launching a structured dialogue with the Member States on enabling factors needed for an effective high-quality digital education. Within these enabling factors, attention will be paid to connectivity, more specifically to the commitments that can be made by the European Union and the Member States in this direction. These commitments will be delivered in the form of guidance and recommendations provided to tackle existing gaps and ensure school connectivity; In terms of initiatives undertaken by the European Union to support connectivity, there is to be mentioned: (i) the Recovery and Resilience Facility which places digital infrastructure among the top five areas of investment. The plans submitted by the Member States to the Commission put digital infrastructure, including connectivity as a real high need priority. This also showed the political motivation that exists at both Member States and European Union level; (ii) **Connecting Europe facility** and digital strand which aims at supporting connectivity and 5G; (iii) the “**WiFi4EU**” scheme which was launched under the previous digital education plan that covered the years 2018-2020 and provided municipalities with the opportunity to apply for vouchers. Since April, 4,000 municipalities applied for vouchers to the total value of 130 million; (iv) The **European Regional Development Fund**, which allocated nearly 7 billion EUR to invest in education training lifelong learning, and allowed nearly 7 million young people or children to use new or improved facilities for the education of childcare in 20 states; (v) the **Economic and investment plan for Western Balkans**, through which around 9 billion of funds were allocated for the region, including human capital, inclusive growth and working towards the twin green and digital transitions.

Albania, Ms Romina Kostani, Director of Innovation and e-Gov Sectorial IPA at the National Agency of Information Society and **Ms Rozalba Merdani**, Head of the Educational Policies and Strategies Unit at the Ministry of Education and Sport in Albania

- In Albania, the management system connects all education stakeholders at the country level (teachers, students, parents and various civic employees from the education system, pre-university) and enables the generation of electronically sealed documents such as graduation certificates. The systems also allow students to have access to information on subjects, topics

and lesson materials provided, education staff to note any information related to students, and parents to track their children’s progress;

- Nationwide plans include the interconnection of all educational institutions in order to improve education performance and outcomes, which will provide sufficient Internet speed and ICT infrastructure for a smoother learning process; Government stakeholders are joining efforts to change the way ICT is taught in schools, by designing a new pre-university curriculum to bridge the gap between education and work. The short-term goal of current professional training and boot camps is to have 1,000 new coders successfully trained by 2022 and 3,000 by 2023;
- The Albanian Digital Agenda had the objective to digitalize the education system to increase the quality of education through various activities such as providing equipment and high-speed Internet with schools, and Internet access within parts of the school other than laboratories;
- When classes started to take place remotely (in 2020) , the Ministry took the responsibility to create online resources such as video recordings and issued instructions on the organization of remote learning; The Ministry developed a digital platform with the support of UNICEF to provide online classes. A new program is being implemented under the leadership of the British Council financed by the UK Government which aims to equip 10- to 15-year-old students with critical thinking skills, digital skills and problem solving and coding skills;
- Limited access to ICT devices and Internet which is mainly present within computer laboratories, as well as limited chances to use ICT devices in the classrooms; lack of coordination at the national level, as in Albania there is no central authority to provide ICT and Internet services, and digital devices for schools, are all remaining challenges at the national level;
- Currently, there are ongoing efforts to define standards on ICT devices and to install wireless networks in schools; to invest in increasing the number of digital devices in schools; technical maintenance of digital devices through student clubs; to develop ICT youth policies; to develop digital competencies through increased use of ICT in all subjects; to raise awareness among students on Internet Safety; and to provide teachers with access to resources and trainings that will further enable them to provide support to students and parents in matters related to personal data protection and child online protection.

North-Macedonia, Ms Biljana Trajkovska, State Advisor on Strategic Planning at the Ministry of Education and Science

- North Macedonia adopted a new law that outlines the core values and direction of primary schools and which provides a framework. The law was created based on the lessons learned from the COVID-19 pandemic and two most recent European Commission initiatives, including the new Action Plan for Digital Education for 2021-2027. The initiatives created a path to improve basic and digital skills and to make education more inclusive;
- The actions that have been undertaken within primary schools focus on the new curriculum and on improving the teaching and learning process. There is a new digital methodology within primary schools to support the inclusion of children with disabilities into the mainstream education setting, which includes the preparation of students to use digital platforms and digital technology;
- In 2019, with the support of UNICEF, a platform called Eduino has been developed which enables the transfer to distance learning by offering more than 5000 video-recorded lessons, as well as tools and webinars for the professional development of teachers;
- For the school year 2020-2021, Albania developed a comprehensive distance learning system and an analysis done by UNICEF showed that 98% of teachers conducted distance learning with interactive teaching methodology, which is a huge improvement compared to the previous school year’s, about 50%.
- An integral part of digital integration is represented by standards at the national level for primary education. One area of the national standards focuses on digital literacy, namely in enabling

students to acquire the essential competencies for active involvement in an information and communication technology society. These national standards are now being incorporated into the curriculum, through subjects and extracurricular activities, and in the syllabus, aiming at transforming these competencies into learning outcomes.

- There is an initiative developed by the Bureau for Education, together with the teachers and with the support of UNICEF to replace the textbooks that are currently available in printed or electronic form with digital versions that will make it easier for teachers to implement strategies.

Ukraine, Ms Gulsanna Mamedieva, Director General of Directorate for Eurointegration at the Ministry of Digital Transformation

- In 3-year-time, the Ministry of Digital Transformation aims to cover 95% of the controlled territory with high-speed Internet, develop digital skills among 6 million citizens, and provide 100% of priority public services online;
- Among the programs and initiatives undertaken at the national level, there is the digital program “DIA”, meaning “The State and I”, which is an educational platform where one million citizens registered and are going through digital skills online courses; The program has a very good outcome, with 80% of the students enrolled that are taking the final test which concludes with receiving a certificate accepted by companies in all countries; This program will be also provided in English soon for the international partners.
- Research shows that 53% of Ukrainians have digital skills below average and 15% of them don’t have digital skills at all. Post-program implementation research is being conducted and the results will be compared to monitor the progress of the program and see its impact;
- Digital education can also be accessed by those who do not have access to the Internet, through 600,000 digital education hubs where 1,500 certified trainers offer free trainings on digital literacy;
- The Ministry of Digital Transformation together with the Ministry of Education and local authorities manage and support the program “Laptop for each teacher” which aimed at providing 6,000 laptops to teachers in rural areas;
- Results of the research show that 65% of Ukrainian villages are not covered by high-quality broadband. There is one program that aims at deploying fiber optic internet in rural areas, and which provided the connection to 1,400 schools. Ukraine initiated a program to deploy fiber optic networks in 3,500 villages in rural areas last month and provided already 300 villages with fiber optic internet.
- The initiative “all Ukrainian schools online” was taken during the COVID-19 pandemic and provides equal access to education to all children, including children from vulnerable groups, children with disabilities, and children from displaced families;
- There is a lot of attention paid to Child Online Protection. The Ministry provides online classes for teachers, and educates teachers, parents and children on online safety through educational campaigns; On this matter, a conference with all relevant stakeholders and international experts was held last year;
- As future initiatives, there is the national platform on e-safety that will provide knowledge on what are the risks encountered in the online environment, how to prevent those risks and how to reduce the harm that might be faced;
- The biggest challenge is represented by broadband coverage, due to insufficient data provided by Internet operators, which creates difficulties in allocating the budget for Internet provision in the regions. There is the necessity of an independent telecom regulator who will be empowered and have the competencies to enforce data collection and to analyze it.

Bosnia and Herzegovina, Ms Meliha Kovacevic, Head of Telecommunications Licensing Department at the Communications Regulatory Agency

- Broadband mapping is a cornerstone for any regulatory framework. The starting point is to identify the areas with limited or affordable connectivity and to identify potential reasons for the limited services, as well as potential sustainable solutions;
- Requirements to collect data on total service availability have been reinforced at a lower cost, which leads to the acceleration of the network deployment process. The institutional and technical environment needs to be upgraded to respond to market requirements. A challenge is represented by insufficient coordination between stakeholders when it comes to broadband mapping;
- Bosnia and Herzegovina currently has a project aiming at enabling alignment with the technical policymaking practice in the European Union and reducing the digital gap between the European Union and the country. Within the project, extensive consultations have been launched with various stakeholders including Ministries and major operators, to define the scope and concrete steps for the future broadband mapping system;
- The process of mapping the locations of schools remains one of the core challenges in Bosnia and Herzegovina.
- The level of IT competencies within schools has been upgraded with the support of international organizations, UNICEF, and foreign Embassies. Large telecom companies extended internet connections to homes and families that did not have Internet access.
- There is a need for a strategic approach in order to achieve an appropriate level of digitalization in education. The first step in this direction is to determine the actual connectivity status in schools, to identify the gaps, and to take measures that will support the telecommunication sector to provide connectivity to schools.

Montenegro, Mr Luka Radunovic, Digital services coordinator at M:Tel

- The social and digital gap in Montenegro is consequent. Since Montenegro is the smallest country in the region, improving connectivity internally but also on a regional level can have a great impact;
- The COVID-19 pandemic aggravated the inequalities surrounding access to ICTs. In this sense, free fiber optic connection has been introduced to 70 schools;
- In 2019, 80% of urban households were connected, while in the rural areas only around 62%. “Study with Me” is a project developed together with National Geographic and one of the largest European educational publishing housings German Celect, to digitalize primary-school books for first graders. The project aimed at providing all first graders with equal quality and access to education, whether they live in urban or rural areas, in the Northern or Southern part of the city, and regardless of their parent social and economic status; The digital study platform is completely free and available for all students and teachers in their schools or homes, and it involved more than 7,000 first graders and 500 primary teachers;
- Other initiatives involve about 1,700 lectures that were recorded and broadcasted through an online platform, and three new ‘study at home’ channels. According to a survey conducted in March 2020, over two-thirds of citizens have watched these TV channels at least once in the previous week.

Points made during the discussion on the priority challenge to be addressed in the short-term period, and the support needed from the international community to address such challenge:

- **Ms Marta Markowska**, Policy Officer for Digital Education in the Directorate-General for Education, Youth, Sport, and Culture (DG EAC), European Commission in Brussels, mentioned that one challenge is to bridge the connectivity gap between the urban and rural areas, as this affects most countries, through mobilizing investment, political will, and through exchanges of best practices and mutual learning;
- **Ms Romina Kostani**, Director of Innovation and e-Gov Sectorial IPA at the National Agency of Information Society highlighted that in **Albania**, changing the ICT curricula is very important, as this is not tailored to the market and students who finish their studies have difficulties in adapting to the working environment. It is also important to train the teachers and the educational staff to adapt to a new model of learning ICT, and to have trainings provided by international experts that will help the teachers change the way they are conducting their lessons;
- **Ms Biljana Trajkovska**, State Advisor on Strategic Planning at the Ministry of Education and Science explained that, in **North Macedonia**, it is important to invest in training provided to both current and pre-service teachers;
- **Ms Meliha Kovacevic**, Head of Telecommunications Licensing Department at the Communications Regulatory Agency, mentioned that in, **Bosnia and Herzegovina**, there is the necessity to conduct comprehensive surveys on school activity to determine the need of schools, to produce a map of schools and to be able to recognize the gaps in connectivity. It is also important to establish cooperation within the education sector and collaboration with the communication sector;
- **Mr Luka Radunovic**, Digital services coordinator at M:Tel raised that, from the perspective of a telecommunication company, in **Montenegro**, it is important to address the lack of Government initiative in order to motivate the private sector to join the common cause of improving connectivity in education. There is a need for national and regional cooperation between the private sector and the Government regarding this topic.

6. CLOSING REMARKS

Mr Jaroslaw Ponder, Head of the ITU Office for Europe and Moderator of the Regional Briefing, started his closing remarks by acknowledging all the valuable information exchanged during the briefing with regard to the practices that are being undertaken at the country level. He furthermore urged the participants to read the report and consider what actions can be taken to overcome the challenges that the country has faced, as well as the experiences of both neighboring and distant countries, in an attempt to learn from one another. He then expressed his hope that the report will represent an enabler for discussions on what can be improved and how the international community can better support countries in their endeavors.

Mr Ponder thanked all panelists, as well as Ms Sarah Delporte and Ms Sarah Fuller for their interventions and for preparing the stage for discussions. He then thanked all those who took time to deliberate on the next steps needed to build “the new post-COVID-19 normal”, which represents an opportunity to make a change in the area of connectivity in education.

Mr Ponder continued by reiterating the readiness of ITU and UNICEF to assist countries by providing an overview of the [analysis at the national level](#) through workshops and policy discussions with national stakeholders, which will facilitate filling the identified gaps. He highlighted that ITU together with UNICEF can provide support in establishing the necessary engagement of local partners to generate multi-agency projects of the UN. He further drew attention to the [ITU-UNICEF Giga Initiative](#) which aims to connect

every school to the internet and every young persons to information, opportunity and choice.

Mr Ponder then proceeded by highlighting ITU’s capacity to leverage different actors across different levels to ensure a coordinated UN approach and alignment with the EU, due to its engagement in various UN mechanisms such as UN Brussels Team Task Force on Digitalization for SDGs and UN Digital Transformation group for Europe and Central Asia, and UN Country Teams.

Mr Ponder concluded by drawing attention to the newly launched ITU “[Digital Skills Insights](#)” which provides an overview of best practices in the field of digital skills.